

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CYNTHIA S. BELL

Appeal 2007-1300
Application 09/524,029
Technology Center 2600

Decided: June 18, 2007

Before JAMES D. THOMAS, KENNETH W. HAIRSTON,
and ROBERT E. NAPPI, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from a Final Rejection of claims 1 to 3, 5 to 17, and 21 to 23. We have jurisdiction under 35 U.S.C. § 6(b).

Appellant has invented a method and system for controlling the brightness of a display based upon received light information (Figures 1 and 6; Specification 11 and 17).

Claim 8 is representative of the claims on appeal, and it reads as follows:

8. A system, comprising:
a receiver of light information to produce an indicator; and
a driver coupled to the receiver, wherein the driver receives the indicator, and, based upon the indicator, automatically sends a signal to control a brightness of a display.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Hosoi	US 5,589,934	Dec. 31, 1996
Helms	US 5,760,760	Jun. 2, 1998
Bowen	US 6,046,730	Apr. 4, 2000
		(filed Jul. 30, 1996)
Toffolo	US 6,337,675 B1	Jan. 8, 2002
		(filed Oct. 30, 1997)
Chikazawa	EP 0 883 103 A1	

The Examiner rejected claims 8 to 12 and 17 under 35 U.S.C. § 102(b) based upon the teachings of Helms. The Examiner rejected claims 1 to 3, 5, 6, and 21 to 23 under 35 U.S.C. § 103(a) based upon the teachings of Helms and Hosoi, the Examiner rejected claim 7 under 35 U.S.C. § 103(a) based upon the teachings of Helms, Hosoi and Toffolo, the Examiner rejected claims 13 and 14 under 35 U.S.C. § 103(a) based upon the teachings of Helms and Chikazawa, and the Examiner rejected claims 15 and 16 under 35 U.S.C. § 103(a) based upon the teachings of Helms and Bowen.

Appellant contends that Helms does not describe a driver as set forth in claim 8 on appeal (Br. 10; Reply Br. 2), and that the combined teachings of the applied references lack the use of an integration time to adjust the brightness of a display as set forth in claim 1 on appeal (Br. 9; Reply Br. 1).

We hereby sustain the anticipation rejection of claims 8 to 12 and 17, sustain the obviousness rejections of claims 13 to 16, reverse the obviousness rejections of claims 1 to 3 and 5 to 7, and sustain the obviousness rejection of claims 21 to 23.

ISSUES

Does Helms describe a driver as set forth in the claims on appeal?

Do the applied references teach or would they have suggested to the skilled artisan the use of integration time to adjust the brightness of a display?

FINDINGS OF FACT

According to the Appellant, the light meter circuit 110 in the ambient light assessment block 102 receives ambient light, quantifies the light information, and digitizes the information in analog-to-digital converter 120. The analog input to the analog-to-digital converter is a logarithm proportional to the incoming light intensity. The display brightness driver 200 compares the quantized information with display brightness values from look-up table 108. Based on the comparison result, the display driver adjusts the brightness of the display 106 (Figure 1; Specification 5 and 11). In an alternative embodiment, Appellant discloses an ambient light assessment block 102b with a plurality of photo sensing sensors 152 in an imager 150. The ambient light assessment block 102b includes a control

unit 154 that calculates the integration time for all of the outputs from the plurality of photo sensing sensors 152 (Figure 3; Specification 6 and 7).

Helms describes a method and apparatus for automatically adjusting the brightness level of an LCD based on the sensed ambient light around the LCD (Abstract; col. 2, ll. 5-10). A photodetector 14 located on the LCD produces an output signal AL that is proportional to the ambient lighting conditions around the LCD (col. 3, ll. 39-42). The output signal AL is compared to a plurality of automatic brightness levels ABL in a look-up table in memory 204b (col. 3, ll. 51-65). “[O]nce the microprocessor 204a accesses from the memory 204b the ABL signal value corresponding to the AL signal input thereto, it outputs to the Backlight driver circuitry 213 an appropriate BC signal for adjusting the brightness level of the LCD 12” (col. 3, l. 65 to col. 4, l. 3).

According to the Examiner’s findings (Final Rejection 6 and 7), Helms describes all of the system structure found in claims 8 to 12 and 17.

In Hosoi, the results of ambient light measurement by photoelectric element 40 and integration by integration circuits 44 and 46 are merely displayed by display 14 (col. 4, l. 51 to col. 6, l. 61). The results are not used to control brightness of the display 14. The only control of brightness¹ of the display 14 is via photoelectric converter element 16, comparator 56 and the CPU 52 (col. 2, ll. 60-65; col. 4, ll. 18-25).

¹ The display brightness control in Hosoi operates in a similar manner to the display brightness control described in Helms.

Toffolo presents a graph that shows a linear relationship between display luminance and ambient luminance (Figure 2). Toffolo states that a logarithmic relationship could be used in place of the linear relationship (col. 2, ll. 26-28).

Chikazawa was cited by the Examiner for a teaching of a direct view LCD used as a microdisplay (Final Rejection 8).

Bowen was cited by the Examiner for a teaching of an apparatus that encompasses a LCD that can be used as a mobile information device (Final Rejection 9).

PRINCIPLES OF LAW

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1946 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *In re Hedges*, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

ANALYSIS

Turning first to the anticipation rejection of claim 8, we agree with the Examiner's findings that Helms describes a system that includes a receiver of light (e.g., light sensor 14) that produces an indicator of ambient light, and a driver (i.e., microprocessor 204a and a driver 213) coupled to the receiver to receive the indicator of ambient light. Based upon the indicator of

ambient light, the driver automatically sends a signal to control the brightness of the display. Appellant's arguments concerning calibration and lower cost devices are not germane to the anticipation issue (Brief 10), and Appellant's argument that Helms does not teach a driver is clearly in error (Reply Br. 2).

Turning next to the obviousness rejection of claim 21, we find that all of the limitations of this claim read directly on the description of Helms set forth *supra* or the description of Hosoi set forth *supra*. The imager in Helms is the photodetector or light sensor 14, and the imager in Hosoi is the photoelectric element 16 in Hosoi (Br. 11; Reply Br. 2).

With respect to the obviousness rejection of claim 22, a driver is clearly described in Helms (Br., 11; Reply Br. 2).

Turning lastly to the obviousness rejection of claim 1, we agree with the Appellant's arguments that Helms relates to controlling the brightness of a display but "does not use an integration time," and that Hosoi teaches how to use "integration time to determine the intensity of ambient light" (Br. 9). We additionally agree with the Appellant's argument that "this is still one step short of converting that information in some way to a form useful for controlling display brightness" (Br. 9).

CONCLUSION

Anticipation has been established by the Examiner for claim 8. The anticipation rejection of claims 9 to 12 and 17 has not been responded to by Appellant. The obviousness of claims 21 and 22 has been established by the Examiner. The obviousness rejections of claims 13 to 16 and 23 have not

been responded to by Appellant. The obviousness of claims 1 to 3 and 5 to 7 has not been established by the Examiner.

DECISION

The anticipation rejection of claims 8 to 12 and 17 is affirmed, and the obviousness rejections of claims 1 to 3, 5 to 7, 13 to 16, and 21 to 23 are affirmed as to claims 13 to 16 and 21 to 23, and are reversed as to claims 1 to 3 and 5 to 7.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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